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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,439	09/25/2003	Douglass L. Blanding	86705NAB	5540

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EXAMINER

MACARTHUR, VICTOR L

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,439

Applicant(s)

BLANDING, DOUGLASS L.

Examiner

Victor MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 5,6,10,15-28 and 30-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-9,11-14 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/24/05, 9/25/03</u> | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I and Species I in the reply filed on 7/13/2005 is acknowledged.

Claims 5, 6, 10, 15-28 and 30-37 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/13/2005.

Note that the limitations "component comprises a detector" (claim 5), "single sheet flexure" (claim 10) and "attached to said component at a first and a second component mount point" (lines 7-8 of claim 15) are not drawn to the elected species shown in figures 2a and 2b as described in the specification, the elected species comprising: a prism or lens (as described throughout the specification) rather than a detector; struts (42, 68) rather than a single sheet flexure; and a single component mount point (64) rather than two component mount points.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 7-9, 11-14 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Beattie (Pub.No.2002/0181128 A1).

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Claim 1. Beattie discloses (fig.2) a compound coupling for mounting a component (137, 135, 110, 115) having a first coefficient of thermal expansion (para.0033) to a support structure (105) having a second CTE (para.0033), the compound coupling comprising a first flexure coupling (two left side 120), a second flexure coupling (two right side 120), and a third flexure coupling (two top side 120, not shown but described in para.30, ll.4-6), wherein each of said flexure coupling extends from said support structure to said component and wherein each of said flexure coupling: (a) is attached to said support structure at a first and a second mount point (points where 120 mount to 105); (b) is attached to said component at a component mount point (point where 120 mount to 115; and (c) has a flexure CTE substantially equal to said second CTE (para.33, ll.11-13).

Claim 2. Beattie discloses the compound coupling according to claim 1, wherein said component comprises a prism (137).

Claim 4. Beattie discloses the compound coupling according to claim 1 wherein said component comprises a lens (para.20).

Claim 7. Beattie discloses the compound coupling according to claim 1 wherein a fastener (set screws as described in para.0030, l.16 and para.0031, ll.3-5) provides attachment at said component mount points.

Claim 8. Beattie discloses the compound coupling according to claim 1 wherein an adhesive (epoxy as described in para.0035, ll.12-13 and para.0030, ll.12-13) provides attachment at said component mount points.

Claim 9. Beattie discloses the compound coupling according to claim 1 wherein at least one flexure coupling comprises a pair of struts (120).

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Claim 11. Beattie discloses the compound coupling according to claim 1 such that a triangle is defined by said component mount point for a first flexure coupling, said component mount point for a second flexure coupling, and said component mount point for a third flexure coupling (in that the three mount points on the component form the apexes of an equilateral triangle).

Claim 12. Beattie discloses the compound coupling according to claim 11 wherein said triangle is equilateral.

Claim 13. Beattie discloses the compound coupling according to claim 1 wherein said flexure coupling are selected from a group consisting of aluminum and stainless steel (stainless steel, para.0033).

Claim 14. Beattie discloses the compound coupling according to claim 1 wherein one of said flexure couplings comprises: (a) a first strut (bottom left 120) extending from said first mount point (bottom left 130) to said component mount point (115); (b) a second strut (top left 120) extending from said second mount point (top left 130) to said component mount point (115); and (c) a third strut (left 122) extending from said first mount point (bottom left 130) to said second mount point (top left 130).

Claim 29. Beattie discloses a compound coupling for mounting a component (137, 135, 110, 115) having a first (para.0033) coefficient of thermal expansion (CTE) at a spatial position with respect to a support structure (105) having a second (para.0033) CTE, the compound coupling comprising at least a first flexure coupling (left pair 120) and a second flexure coupling (right pair 120), each said flexure coupling extending from said support structure to said component and: (a) attached to said support structure at a first (top 130) and a second (bottom

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130) mount point associated with said flexure coupling; (b) attached to said component at a component mount point (115) associated with said flexure coupling; and each said flexure coupling having a flexure CTE substantially equal to said second CTE (para.33, ll.11-13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beattie (Pub.No.2002/0181128 A1) in view of Roddy (U.S. Patent 6,648,475).

Claim 3. Beattie discloses the compound coupling according to claim 2 but does not expressly state what type of prism is used. Since a prism is required to fulfill the Beattie's multiplexing function (para.0020), one concerned with recreating the invention of Beattie would be required to seek out a specific type of prism that is conventional to the multiplexing art. Roddy discloses that X-prisms and Philips prisms are well known to be conventional in the multiplexing art (col.5, ll.14-59). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use either an x-prism or Philips prism, as taught to be conventional in the multiplexing art by Roddy, since one would be required to use such a prism to recreate the Beattie invention. Furthermore, the examiner notes that it is not critical to the applicant's invention that the supported component be an optical component much less a prism let alone a prism of any particular type (specification, p.11, ll.2-6).

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Referring to compound couplings:

Furuhata U.S. Patent 6,540,360

Takizawa U.S. Patent 6,657,680

Willis U.S. Patent 6,754,013

Hubbard U.S. Patent 6,825,997

Weber U.S. Pub. 2004/0257681

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (571) 272-7085.

The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-3600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

VLM

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September 19, 2005

Daniel P Stodola

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